

**Amendments to the Specification:**

Please replace the paragraph on page 11, line 6, with the following amended paragraph:

Fig. 6 is a similar view of an embodiment of an opening; ~~and~~

Please replace the paragraph on page 11, lines 8-9, with the following amended paragraph:

Fig. 7 is a schematic diagram of an arrangement of a measuring device on a wall of a process chamber[[]]; and

Please add the following new paragraph after page 11, line 10:

Fig. 8 schematically shows a sidewall of a process chamber with two sensor elements having openings of different sizes.

Please replace the paragraph on page 15, line 12, to page 16, line 5, with the following paragraph:

In a further refinement of the invention, it is advantageous to arrange a plurality of sensor elements 4 and/or 40 next to one another within the chamber, these sensor elements having openings of different size (see Fig. 8). The absorption behavior of the different openings is monitored simultaneously

or successively. With the progressive growth of the deposited layer, e.g. 42, the smallest of the openings will first be coated opaquely, while the larger of the openings still have small absorption phenomena ranging to no absorption phenomena at all. Depending on the ratio of the absorbing openings to the as yet non-absorbing openings, it is possible to determine the degree of contamination within the chamber. The transmitted light intensity of an opening is expediently compared with an absolute threshold value or, in accordance with the embodiment according to Fig. 2, a relative threshold value. The information contribution of an opening for the measurement is thus digital. Overall, a relatively finely resolved statement about the degree of contamination inside the chamber then results for an arrangement of a plurality of openings of different diameters.